

UNITED STATES DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

This draft ecological site description is approved for field use and testing for a one year period beginning MM, YYYY.
Additional information and comments on this site should be sent to the Utah State Range Management Specialist.

STATE: Utah

SITE TYPE: Rangeland

ECOLOGICAL SITE NAME: Mountain Very Steep Stony Loam (Browse)

SITE NUMBER: 047CY474UT

MLRA: 047C

Original Site Description: Author: GWL, LLR

Date: 04/22/1992

Revised Site Description: Author:

Date:

Approved by: Title: State Range Cons. Signed: Pat Shaver

Date:

Ecological Site Definition - A distinctive kind of land, with specific physical characteristics, which differs from other kinds of land in its ability to produce a distinctive kind and amount of vegetation, and in its response to management.

A. PHYSICAL CHARACTERISTICS

(description narrative of this particular site)

1. SOILS

Depth: >60 inches

Surface Textures:

Surface Fragments(<=3" % cover, >3" % cover): 10-80%

Subsurface Textures:

Subsurface Fragments(<=3" % vol, >3" % vol):

Geologic Parent Materials: Residuum and Colluvium from Sedimentary Materials

Moisture Regime: Ustic

Temperature Regime: Frigid

Runoff: Slow-Medium

Permeability(min-max): Moderate

Drainage Class(min-max): Well Drained

Water Erosion Hazard:

Wind Erosion Hazard:

Electrical Conductivity (EC in mmhos/cm):

Sodium Adsorption Ration (SAR):

Soil Reaction (1:1 water):

Soil Reaction (0.1 M CaCl₂):

pH Range:

Available Water Capacity (inches): 0.04-0.16

Major Soils Associated With This Site:

Soil Survey Area 047

Sheecal CB-L, 40-60% Eroded

Towave Family ST-FSL, 50-80%

Dominic STX-LS, 50-80%

Windham FDLX-L, 40-70%

Additional information may be found in Section II of the Field Office Technical Guide.

2. PHYSIOGRAPHIC FEATURES

Site Type: Rangeland

Ecological Site Name: Mountain Very Steep Stony Loam (Browse)

Site Number: 047CY456UT

Landform and Position: Pediment Back Slope Shoulders, Cuesta Scarps and Very Steep Mountain Slopes

Aspect: All

| | | |
|--------------------|----------------|----------------|
| | <u>Minimum</u> | <u>Maximum</u> |
| Slope: | 40 | 80 |
| Elevation: | 6200 | 9999 |
| Flooding: | | |
| Frequency: | | |
| Duration: | | |
| Ponding: | | |
| Depth (inches): | | |
| Frequency: | | |
| Duration: | | |
| Water Table Depth: | | |

B. CLIMATIC FEATURES

Mean Annual Precipitation (inches): 14-25

Mean Annual Air Temperature: 40-44

Mean Annual Soil Temperature: 43-47

Frost Free Period (days): 60-110

Freeze Free Period (days): 0-0

Temperature and Moisture Distribution:

| Temp | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| High | 34 | 39 | 46 | 56 | 67 | 77 | 86 | 84 | 75 | 63 | 46 | 37 |
| Mean | | | | | | | | | | | | |
| Low | 10 | 14 | 20 | 28 | 36 | 42 | 49 | 47 | 39 | 30 | 17 | 13 |

| ppt | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|------|------|------|------|------|------|------|------|------|------|------|------|------|
| High | | | | | | | | | | | | |
| Mean | 2.71 | 2.35 | 2.22 | 1.80 | 1.68 | 1.27 | 0.79 | 1.04 | 1.11 | 1.69 | 1.70 | 1.87 |
| Low | | | | | | | | | | | | |

Climate Stations: St. ID.:

Location:

Period:

From: To:

(Includes factors such as storm intensity, precipitation dependability, origin and pattern of storms, driest and wettest months, orographic effects, etc.)

Influencing Water Features (if any):

Wetland Description(Cowardin System) System Subsystem Class

Stream Types(Rosgen System) System

C. PLANT COMMUNITY CHARACTERISTICS

1. Potential Plant Community Description and Ecological Factors

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The general view of this site is birchleaf mountainmahogany and serviceberry. The composition by air-dry weight is approximately 35 percent perennial grasses, 10 percent forbs, and 55 percent shrubs.

2. Plant Community Composition by Weight and Percentage

Grasses and Grasslike, %

| Common Name | National Symbol | Group | Pounds per Acre | | % by Weight of Total Composition | |
|-------------------------|-----------------|-------|-----------------|------|----------------------------------|------|
| | | | Low | High | Low | High |
| Bluebunch wheatgrass | PSSP6 | | 120 | 180 | 10 | 15 |
| Sheep fescue | FEOV | | 60 | 120 | 5 | 10 |
| Nevada bluegrass | PONE3 | | 36 | 60 | 3 | 5 |
| Columbia needlegrass | ACNE9 | | 36 | 60 | 3 | 5 |
| Needleandthread | HECO26 | 1 | 12 | 24 | 1 | 2 |
| Prairie junegrass | KOMA | 1 | 12 | 24 | 1 | 2 |
| Geyer sedge | CAGE2 | 1 | 12 | 24 | 1 | 2 |
| Mountain brome | BRCA5 | 1 | 12 | 24 | 1 | 2 |
| Sandberg bluegrass | POSE | 1 | 12 | 24 | 1 | 2 |
| Other perennial grasses | PPGG | 1 | 12 | 24 | 1 | 2 |
| Other annual grasses | AAGG | 1 | 12 | 24 | 1 | 2 |

Forbs, %

| Common Name | National Symbol | Group | Pounds per Acre | | % by Weight of Total Composition | |
|---------------------------|-----------------|-------|-----------------|------|----------------------------------|------|
| | | | Low | High | Low | High |
| Arrowleaf balsamroot | BASA3 | | 36 | 60 | 3 | 5 |
| Spurred lupine | LUCAC3 | 2 | 12 | 24 | 1 | 2 |
| Longleaf phlox | PHLO2 | 2 | 12 | 24 | 1 | 2 |
| Low beardtongue | PEHU | 2 | 12 | 24 | 1 | 2 |
| Small leaf pussytoes | ANMI3 | 2 | 12 | 24 | 1 | 2 |
| Bastard toadflax | COUM | 2 | 12 | 24 | 1 | 2 |
| Blue flax | LIPE2 | 2 | 12 | 24 | 1 | 2 |
| Common yarrow | ACMI2 | 2 | 12 | 24 | 1 | 2 |
| Wyoming Indian paintbrush | CALI4 | 2 | 12 | 24 | 1 | 2 |
| Twolobe larkspur | DENU2 | 2 | 12 | 24 | 1 | 2 |
| Lobeleaf groundsel | SEMU3 | 2 | 12 | 24 | 1 | 2 |
| Common stonecrop | SELA | 2 | 12 | 24 | 1 | 2 |
| Other perennial forbs | PPFF | 2 | 60 | 120 | 5 | 10 |
| Other annual forbs | AAFF | 2 | 60 | 120 | 5 | 10 |

Shrubs, %

| Common Name | National Symbol | Group | Pounds per Acre | | % by Weight of Total Composition | |
|-------------|-----------------|-------|-----------------|------|----------------------------------|------|
| | | | Low | High | Low | High |

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| | | | | | | |
|----------------------------|--------|---|-----|-----|----|----|
| Birchleaf mountainmahogany | CEMO2 | | 180 | 240 | 15 | 20 |
| Utah serviceberry | AMUT | | 180 | 240 | 15 | 20 |
| Mountain big sagebrush | ARTRV | | 60 | 120 | 5 | 10 |
| Mountain snowberry | SYOR2 | 3 | 36 | 60 | 3 | 5 |
| Bitterbrush | PUTR2 | 3 | 36 | 60 | 3 | 5 |
| Woods rose | ROWO | 3 | 36 | 60 | 3 | 5 |
| Spineless horsebrush | TECA2 | 3 | 36 | 60 | 3 | 5 |
| Mountain low rabbitbrush | CHVIL4 | 3 | 36 | 60 | 3 | 5 |
| Curleaf mountainmahogany | CELE3 | 3 | 36 | 60 | 3 | 5 |
| Creeping Oregon grape | MARE11 | 3 | 36 | 60 | 3 | 5 |
| Crispleaf wild buckwheat | ERCO14 | 3 | 36 | 60 | 3 | 5 |
| Chokecherry | PRVI | 3 | 36 | 60 | 3 | 5 |
| Singleleaf ash | FRAN2 | 3 | 36 | 60 | 3 | 5 |
| | | | | | | |
| Other shrubs | SSSS | 3 | 60 | 120 | 5 | 10 |

Trees, %

| Common Name | National Symbol | Group | Pounds per Acre | | % by Weight of Total Composition | |
|------------------------|-----------------|-------|-----------------|------|----------------------------------|------|
| | | | Low | High | Low | High |
| Rocky mountain juniper | JUSC2 | | 0 | 24 | 0 | 2 |

3. Plant Community Annual Production

At the highest potential similarity index, this site will produce approximately the following amount of air-dry herbage, expressed as pounds/acre:

| | Low | High |
|------------------|------|------|
| Favorable Year | 1400 | 1500 |
| Average Year | 1100 | 1200 |
| Unfavorable Year | 700 | 800 |

4. Ground Cover and Structure

a. Vegetative

| Vegetation Type | Percent Canopy Cover | Height Range (ft.) | Percent Basal Area Cover |
|----------------------------------|----------------------|--------------------|--------------------------|
| Grasses & Grass-like (perennial) | 20 | 2 | 10 |
| Forbs (perennial) | 5 | 1 | 5 |
| Shrubs | 35 | 4 | 20 |
| Trees | | | |
| Cryptogams | | | |

b. Other

| | |
|------------------|--|
| Litter | |
| Coarse Fragments | |

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| | |
|-------------|--|
| Bare Ground | |
|-------------|--|

5. Ecological Dynamics of the Site

Grazing has not been an important factor in altering the plant community. This ecosystem appears to be a fire dependant community. Shrubs appear to increase after fire.

Plant Communities & Transitional Pathways

(Show a steady state diagram with influences to move from one steady state to another)

6. Plant Growth Curves

| | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|----------------|---------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Percent Growth | 0 | 0 | 0 | 5 | 20 | 50 | 5 | 10 | 5 | 5 | 0 | 0 |
| Name | PNC | | | | | | | | | | | |
| ID Number | UT4741 | | | | | | | | | | | |
| Description | Excellent Condition | | | | | | | | | | | |

| | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|----------------|---------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Percent Growth | 0 | 0 | 0 | 0 | 30 | 50 | 0 | 10 | 10 | 0 | 0 | 0 |
| Name | Good Condition No.1 | | | | | | | | | | | |
| ID Number | UT4742 | | | | | | | | | | | |
| Description | | | | | | | | | | | | |

7. Aspect Differences Near MLRA Boundaries

(Give related range sites in MLRA's above and below)

8. Associated Sites Within MLRA

047CY430UT
 Mountain Loam (Mountain big sagebrush)

047CY460UT
 Mountain Stony Loam (Browse)

9. Correlated Sites in Other States

(Give site name and number)

D. MAJOR USES OF THIS SITE

1. Livestock

- a. Site Factors Influencing Management

Livestock grazing is not an important factor on this site because of steepness of slope.

b. Guide to Forage Quality (Plant preference by season)

| Species | Oct-Nov | Dec-Feb | Mar-May | Jun-Sep |
|---------|---------|---------|---------|---------|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

VG = Very Good G = Good F = Fair P = Poor

2. Wildlife

a. Site Factors Influencing Management

This very steep site provides food and cover for many species of wildlife.

b. List of Potential Species Present

Wildlife using this site include sage grouse, rabbit, coyote, mule deer, and elk.

This is a short list of the more common species found. Many other species are present as well and migratory birds are present at times.

c. Guide to Forage Preference of Managed Wildlife Species

| Wildlife Species → | | | | |
|--------------------|-----|--------|-----|--------|
| Plant Species ↓ | Use | Season | Use | Season |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

Use - A = preferred or desirable
 B = some use, but less important
 C = little use or used occasionally

Season - F = Fall (Oct-Nov)
 W = Winter (Dec-Feb)
 Sp. = Spring (Mar-May)
 Su. = Summer (Jun-Sep)

3. Recreational Uses

This site is colorful during spring, summer and fall.

4. Wood Products

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 A very sparse stand of Rocky Mountain juniper.

5. Other Uses

E. THREATENED AND ENDANGERED SPECIES

1. Plants
2. Animals

F. MODAL LOCATION AND DOCUMENTATION

State: Utah County:
 Latitude: Longitude:

Modal Soil: Sheecal CB-L, 40-60% Eroded — fine-loamy, mixed (calc.), frigid Typic Ustorthents

Type Location: NE ¼, SW ¼, SW ¼, Section 15, Township 3N, Range 20E

General Legal Description:

Field Office Site Location

Roosevelt

Data Collected and References

| Sampling Source | Number of Records | Range Similarity Index | | | |
|-----------------------------|-------------------|------------------------|--------|--------|-------|
| | | > 76% | 51-75% | 26-50% | 0-25% |
| NRCS - ECS - 417 | | | | | |
| UTAH - RANGE - 2 | | | | | |
| | | | | | |
| | | | | | |
| Permanent Transect Location | | | | | |

Other References